

CLAIMS

What is claimed is:

1. A method of forming a rubber-overmolded plastic casing, the method comprising:
 - providing a plastic piece, the plastic piece being a part of a casing;
 - applying a protective barrier to at least a part of the plastic piece; and
 - molding a rubber layer onto at least the part of the plastic piece over the protective barrier.
2. The method as described in claim 1, wherein the plastic piece comprises a polycarbonate resin.
3. The method as described in claim 1, further comprising, before applying the protective barrier, cleaning at least the part of the plastic piece over which the protective barrier will be applied.
4. The method as described in claim 3 further comprising, after cleaning the part of the plastic piece and before applying the protective barrier, drying the plastic piece.
5. The method as described in claim 1, wherein the plastic piece is translucent.
6. The method as described in claim 1, wherein the casing is a computer casing.

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1 7. The method as described in claim 1, wherein the casing is for a
2 computer peripheral.

1 8. The method as described in claim 1, wherein the protective coating is
2 applied as a liquid.

1 9. The method as described in claim 1, wherein the protective coating is
2 applied under ambient conditions.

1 10. The method as described in claim 1, wherein the protective barrier is
2 thick enough to prevent the rubber layer from attacking the plastic piece.

1 11. The method as described in claim 1, wherein the protective barrier is
2 clear.

1 12. The method as described in claim 1, further comprising, before
2 molding the rubber layer over the protective barrier, curing the protective barrier.

1 13. The method as described in claim 1, wherein the protective barrier is a
2 polyurethane coating.

1 14. The method as described in claim 1, wherein the rubber layer is
2 translucent.

1 15. A method of protecting a plastic piece from reacting with a rubber
2 layer molded over at least a part of the plastic piece, the method comprising:
3 providing the plastic piece;

4 cleaning at least the part of the plastic piece;
5 drying the plastic piece;
6 after cleaning and drying the plastic piece, applying a liquid solution to at
7 least the part of the plastic piece;
8 curing the liquid solution to form a polyurethane coating on at least the part
9 of the plastic piece; and
10 molding the rubber layer onto at least the part of the plastic piece over the
11 polyurethane coating.

1 16. The method as described in claim 15, wherein the plastic piece
2 comprises a polycarbonate resin.

1 17. The method as described in claim 15 wherein at least the part of the
2 plastic piece is cleaned using a solvent.

1 18. The method as described in claim 17 wherein the solvent is selected
2 from the group consisting of: isopropyl alcohol, ethanol, and methanol.

1 19. The method as described in claim 15 wherein at least the part of the
2 plastic piece is cleaned using a cleaner.

1 20. The method as described in claim 15 wherein the plastic piece is dried
2 using compressed air.

1 21. The method as described in claim 15 wherein the plastic piece is dried
2 in an oven.

1 22. The method as described in claim 15 wherein the plastic piece is
2 translucent.

1 23. The method as described in claim 15 wherein the plastic piece is a part
2 of a computer casing.

1 24. The method as described in claim 15 wherein the plastic piece is a part
2 of a casing for a computer peripheral.

1 25. The method as described in claim 15 wherein the liquid solution
2 comprises an isocyanate component and a polyol component.

1 26. The method as described in claim 25 wherein the liquid solution
2 comprises approximately equal parts of the isocyanate component and the polyol
3 component.

1 27. The method as described in claim 25 wherein the isocyanate
2 component and the polyol component are present in the liquid solution in a ratio of
3 between about 45:55 and about 55:45.

1 28. The method as described in claim 15 wherein the liquid solution is
2 applied under ambient conditions.

1 29. The method as described in claim 15 wherein the liquid solution is
2 applied at a temperature between about 20° and about 30°C.



1 30. The method as described in claim 15 wherein the liquid solution is
2 applied under less than about 80% relative humidity.

1 31. The method as described in claim 15 wherein the polyurethane coating
2 has a thickness of between about 0.01 and about 0.03 mm.

1 32. The method as described in claim 15 wherein the polyurethane coating
2 has a thickness of 0.02 ± 0.005 mm.

1 33. The method as described in claim 15 wherein the polyurethane coating
2 is clear.

1 34. The method as described in claim 15 wherein the liquid solution is
2 cured at an elevated temperature.

1 35. The method as described in claim 15 wherein the liquid solution is
2 cured at a temperature between about 70° and about 90°C.

1 36. The method as described in claim 15 wherein the liquid solution is
2 cured at an elevated temperature for between about 20 and about 60 minutes.

1 37. The method as described in claim 15 wherein the rubber layer is
2 translucent.

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